

Computing Infrastructure – Minos 2008/12

- MySQL and CVS upgrades
- Hardware deployment
- Condor / Grid status
- /minos file server
- Parrot status
- AFS instability
- FNALU plans

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MYSQL and CVS upgrades

- Testing upgrade to 5.x on minos-mysql2
 - Probably change write passwords
 - When ready, minos-db1 network alias will move
 - Will add separate CRL server instance
 - Will add replicas for Farm and Analysis
- CVS will move to the CDCVS server
 - Will still use minoscvs alias, and have full control
 - Early next year, transparent to users

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Hardware deployment

- /minos/data2 – 24 TB Hitachi
 - /minos/data symlinks to new disk, use them
 - Users and analysis files remain on old SataBeast
- Dcache – 2 TB rw data, 10 TB ntuples – coming soon
- Servers - 2x4 core 2.6 Ghz Intel, 16 GB memory
 - minos-mysql2 – testing - mysql1 will be Farm server
 - minos27 - NIS master and interactive – please test
 - Minos-sam04 – coming soon
 - minos25 – upgraded Condor master node

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Condor/Grid status

- Condor queue on Minos Cluster heavily used
- GlideinWMS continues in heavy episodic use
 - Over 1K running processes, tens of K queued
 - Expanded to FermiGrid (CDF nodes)
 - Many other improvements by Ryan Patterson
 - Cluster access, minos_q, groups, Fermigrid
- Lab authentication has 4/second limit, avoid global rm
- Minos25 hardware upgrade Dec 5
 - due to I/O wait overloads

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/minos NFS fileserver

- NexSAN SataBeast, connected to BlueArc via FC SAN
 - Performance issues being investigated
- Global failures in early December, first since July
 - due to CMS disks and Bluearc firmware
- 24 TB new Hitachi disk deployed in /minos/data
 - users, analysis remain on original disk
 - symlinks to /minos/data2 for the rest
 - Use the symlinks, we will eventually re-merge

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PARROT deployment on Fermigrid

- PARROT provides virtual AFS file system to any client
 - Supported by Doug Thain at Notre Dame
- Minos using in production for Fermigrid analysis jobs
- Python has recently broken under Parrot
 - strange error messages, no SAM
- Should retire AFS from our 8 GPFarm nodes

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AFS instability

- AFS continues to time out on occasion
 - About once per month per node, for 2 minutes
 - Will continue to investigate next year

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FNALU plans

- FNALU LSF was replaced with Condor by Sep 15
 - Half of former capacity , old nodes retired
 - We may expand Minos Cluster capacity FY09